

**Abstract**

**SIDE REFLECTOR FOR ILLUMINATION**  
**USING LIGHT EMITTING DIODE**

5           An LED illumination unit uses a first reflector comprising a reflecting surface formed as a surface of revolution about a first revolution axis. The LED emits light about a first LED axis towards the reflecting surface of the first reflector. The first LED axis is non-parallel to the first revolution axis and the light emitting area of the first LED unit is positioned substantially at a focus of the reflecting surface. The reflector may also have two or more  
10 reflecting surfaces for collecting and directing light from two or more respective LEDs.